

Air preparation units

*Series airfit A50
G11/2, G2*

Overview

Description	Page		
	Characteristics	Dimensions	Order instructions Type overview
Filter-water-separator	92, 93, 96	98	108
Pressure regulating valve, pilot operated	92, 93, 96	98, 99	108
Submicrofilter	94, 95	106	110
Activated carbon filter	94, 95	106	110
Central air line lubricator	92, 93	107	110
Start valve	92, 93	100	109
2/2 Way start-stop valve	94, 95	100, 101	109
3/2 Way start-stop valve	94, 95, 97	102–105, 110	109, 110
Accessories	111, 112	111, 112	111, 112



Air preparation units

Series airfit A50
G11/2, G2

Characteristics

Special solutions
(e.g. temperature, pressure,
medium ...) on request, or see
page 155–166 for special units

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	Filter-water-separator	Dust filter
System			With cyclone system and filter element and wear indicator	Dust filter with wear indicator
Type			A50F--ADV	A50FD--ADV
Material				
– Housing			Diecast aluminum	
– Metal bowl			Diecast aluminum	
– Diaphragm			–	–
– Standard sealings			NBR	
Port size			G11/2, G2	G11/2, G2
Flange connection			SAE flange	SAE flange
Max. condensate capacity		cm ³	600	600
Pore size of filter element		µm	30 or 5	1
Condensate drainage			Fully automatic (float type)	Manual, semi-automatic (pressure relief)
Max. oil capacity		cm ³	–	–
Oil refilling			–	–
Size of micro-mist particles		µm	–	–
Installation			Vertical, bowl at the bottom	
Medium and ambient temperatures	T_{min} T_{max}	°C °C	0	Further temperatures on request
Weight (mass)		kg	6.3	6.4
Pneumatic characteristics				
Operating pressure range – inlet pressure	$p_{1 min}$ $p_{1 max}$	bar bar	0 17.5	0 17.5
Operating pressure range – outlet pressure	$p_{2 min/max}$	bar		
Differential pressure range	p_{min} p_{max}	bar bar	–	–
Maximum flow	Q_{max}	l/min m ³ /h	> 40000 ²⁾ > 2400	> 40000 ²⁾ > 2400
Degree of moisture separation at recommended flow	η	%	> 90	Only solid particles > 99% related to 1 µm



¹⁾ at $p_1 = 10$ bar and $p_2 = 6.3$ bar, $\Delta p = 1$ bar

²⁾ at $p_1 = 6$ bar and $\Delta p = 1$ bar

³⁾ recommended pilot pressure regulating valve SR-1/4 (see page 23)

*) Use only recommended oils with viscosity VG32 to ISO 3448 (32 mm²/s at 40°C) or HOERBIGER special oil, Order No.: KY 8766 (see page 191)

	Pressure regulating valve	Pressure regulating valve, pilot operated	Central air line lubricator		Start valve	
	Diaphragm-type pressure regulating valve with integrated pilot pressure regulating valve, secondary pressure relief, inlet pressure, and volume compensation, hand-wheel lockable	Pilot operated diaphragm-type pressure regulator ³⁾	Micro-mist lubricator with pilot operated differential pressure regulating valve for oil-feed adjustment *)		Seat valve for slow pressure build-up (e.g. after emergency shutdown). At 0.5 x operating pressure the valve switches to full flow	
	A50R-.-	A50RV-.-	EL-25	EL50	A50DA	A50DA
	Diecast aluminum					
	-	-	-	-	-	-
	NBR	NBR	-	-	-	-
	NBR					
	G11/2, G2	G11/2, G2	G1	G2	G11/2	G2
	SAE flange	SAE flange	-	-	SAE flange	SAE flange
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	2500	5000	-	-
	-	-	Manual – also during operation		-	-
	-	-	0.2–2	0.2–2	-	-
	In any position	In any position	Vertical, bowl at the bottom		In any position	In any position
	0 Further temperatures on request	0 Further temperatures on request	+5	+5	0 Further temperatures on request	0 Further temperatures on request
	+60	+60	+60	+60	+60	+60
	3.5	3.4	10	18	3.4	3.4
	0	0	-	-	2	2
	17.5	17.5	10	10	17.5	17.5
	0.5 to 8	0.5 to 16 $p_{st} > 10$	-	-	-	-
	-	-	0.2	0.2	-	-
	-	-	0.8	1.0	-	-
	> 40000	> 40000	> 20000	> 40000	> 40000 ²⁾	> 40000 ²⁾
	> 2400	> 2400	> 1200	> 2400	> 2400	> 2400
	-	-	-	-	-	-

For more characteristics of air preparation units see page 94–97

Air preparation units

Series airfit A50
G11/2, G2

Characteristics

Special solutions
(e.g. temperature, pressure,
medium ...) on request, or see
page 155–166 for special
units

Pressures quoted as gauge pressure

Characteristics	Symbol	Unit	2/2 Way start-stop valve	
System			Start-stop valve, electrically or pneumatically actuated	
Type			A50DS-..	
Material				
– Housing			Diecast aluminum	
– Metal bowl			–	
– Diaphragm			–	
– Standard sealings			NBR	
Port size			G11/2	G2
Flange connection			SAE flange	
Max. condensate capacity		cm ³	–	
Pore size of filter element		µm	–	–
Condensate drainage			–	–
Installation			In any position	
Medium and ambient temperatures	T _{min} T _{max}	°C °C	0 +60	Further temperatures on request
Weight (mass)		kg	3.4	
Pneumatic characteristics				
Operating pressure range – inlet pressure	p _{1 min} p _{1 max}	bar bar	2 17.5	
Maximum flow ¹⁾	Q _{max}	l/min m ³ /h	> 40000 > 2400	
Degree of moisture separation at recommended flow	η	%	–	–
Residual oil amount		mg/m ³	–	–

¹⁾ at p₁ = 6 bar and Δp = 1 bar



Air preparation units

Series airfit A50
G11/2, G2

Characteristics

Special solutions
(e.g. temperature, pressure,
medium ...) on request, or see
page 155–166 for special units

3/2 Way start-stop valve		Submicrofilter		Activated carbon filter	
Start-stop valve, electrically or pneumatically actuated					
A50DS-..		A50MF1080-...-ADV		A50MC1080-...-DV	
Diecast aluminum		Diecast aluminum		Diecast aluminum	
-		-		-	
-		-		-	
NBR					
G11/2	G2	G11/2	G2	G11/2	G2
SAE flange		SAE flange		SAE flange	
-		600		600	
-		-		-	
-		Automatic (float type)		Manual, semi-automatic (pressure relief)	
In any position		Vertical, bowl at the bottom		Vertical, bowl at the bottom	
0 Further temperatures on request +60					
5.0		6.4		6.4	
2 17.5		0 17.5		0 17.5	
> 40000 > 2400		10000 (recommended 600 at 6 bar)		10000 (recommended 600 at 6 bar)	
-		Over 99.99999% related to 0.01 µm		Over 99.99999% related to 0.01 µm	
-		< 0.01 input conc. 3 mg/m ³		0.003% in combination A50MF	

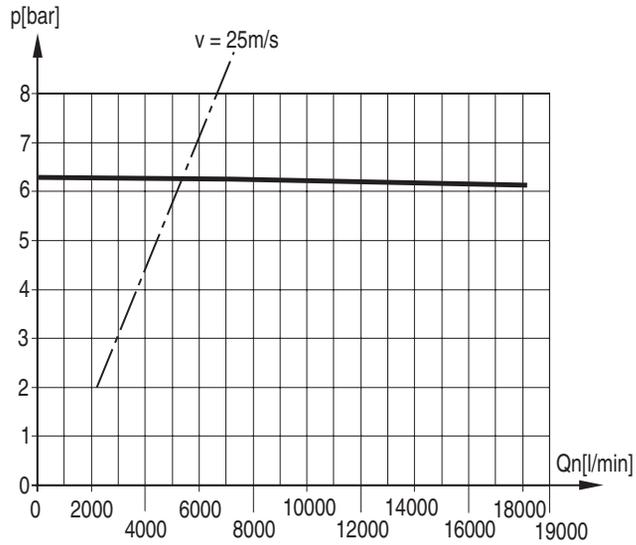


Air preparation units

Filter-water-separator, dust filter
 Type: A50F-11/2, -2
 Type: A50FD-11/2, -2

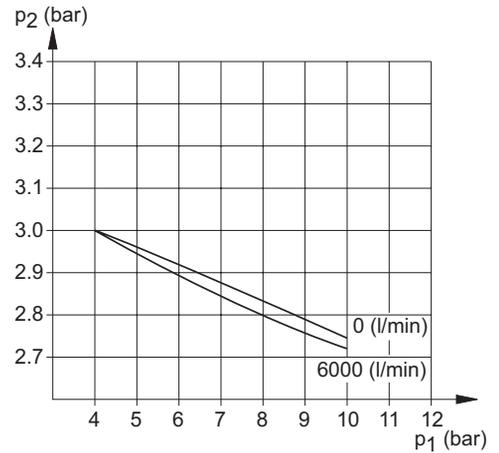
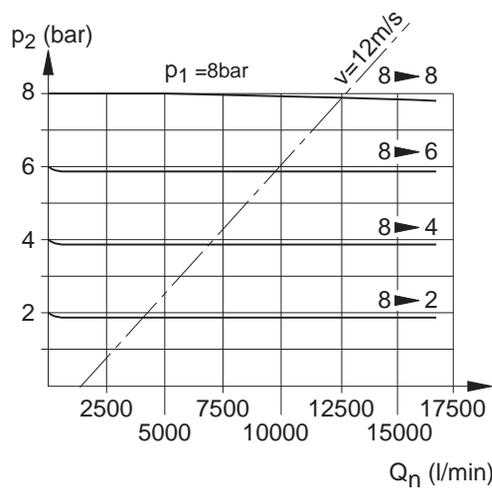
Series airfit A50
 G11/2, G2

Flow characteristics

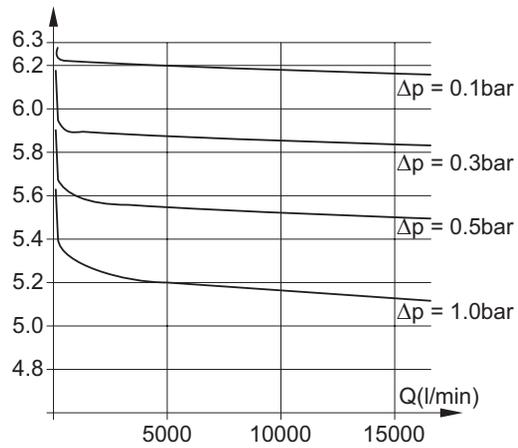


Pressure regulating valve – pilot operated
 Type: A50R-11/2, -2
 Type: A50RV-11/2, -2

Outlet pressure variation with fluctuating inlet pressure



Central air line lubricator – differential pressure in relation to the flow rate
 Type: EL-25, -50



Air preparation units

Series airfit A50
 G1 1/2, G2

Flow characteristics



Air preparation units

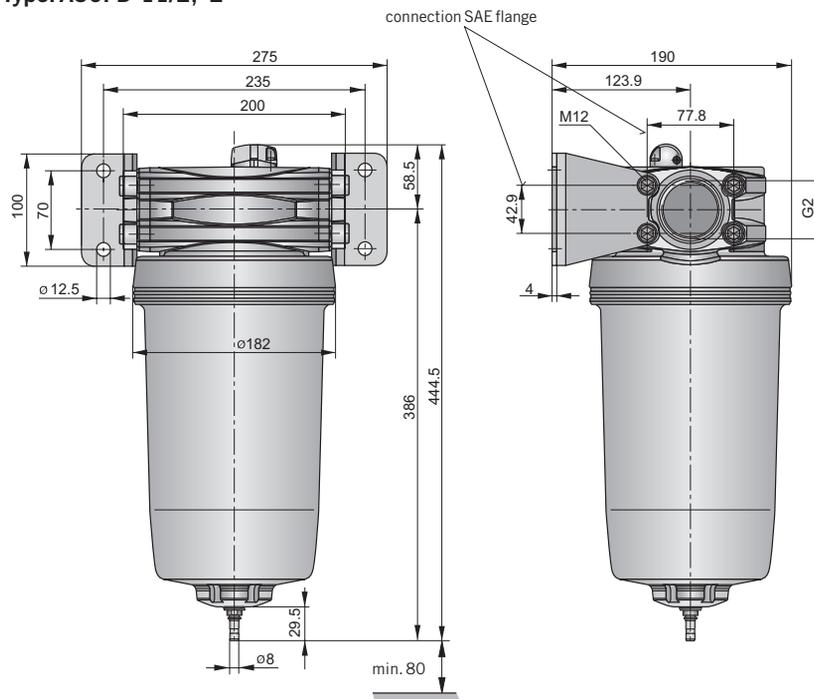
Series airfit A50
G1 1/2, G2
– with/without thread flanges

Dimensions

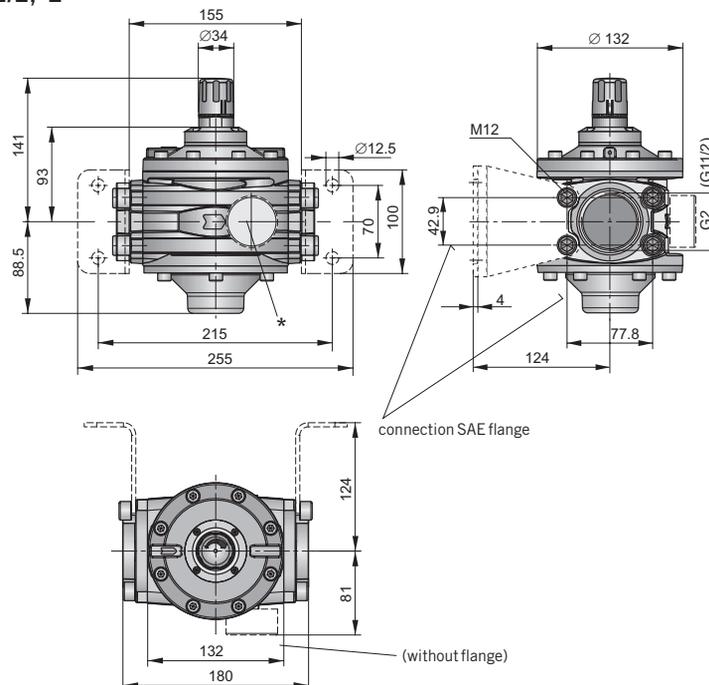
Delivery includes:

- Basic version
(without thread flanges)
1 product
- Version with thread flanges
1 product
2 thread flanges

Filter-water-separator – Type: A50F-11/2, -2
Dust filter – Type: A50FD-11/2, -2



Pressure regulating valve, pilot operated with integrated pilot pressure regulating valve
Type: A50R-11/2, -2



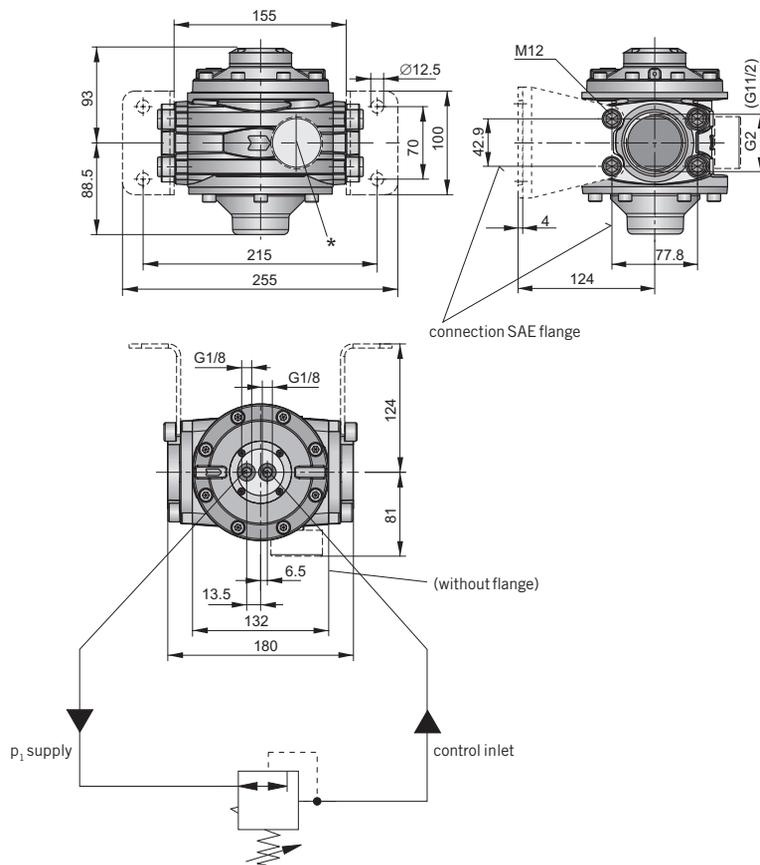
On delivery the plug screw is not assembled.
* Two opposite gauge ports G1/4

For order instructions see page 108–110, for characteristics see page 92–95,
for accessories see page 111, 112

Dimensions in mm

Pressure regulating valve, pilot operated – Type: A50RV-11/2, -2

– Recommended pilot regulating valve, series airfit swing, Type: SR-1/4, PB45449-058



Air preparation units

Series airfit A50
G1 1/2, G2
– with/without thread
flanges

Dimensions

On delivery the plug screw is not assembled.
* Two opposite gauge ports G1/4

For order instructions see page 108–110, for characteristics see page 92–95,
for accessories see page 111, 112

Dimensions in mm



Air preparation units

Series airfit A50
G11/2, G2
– with/without thread
flanges

Dimensions

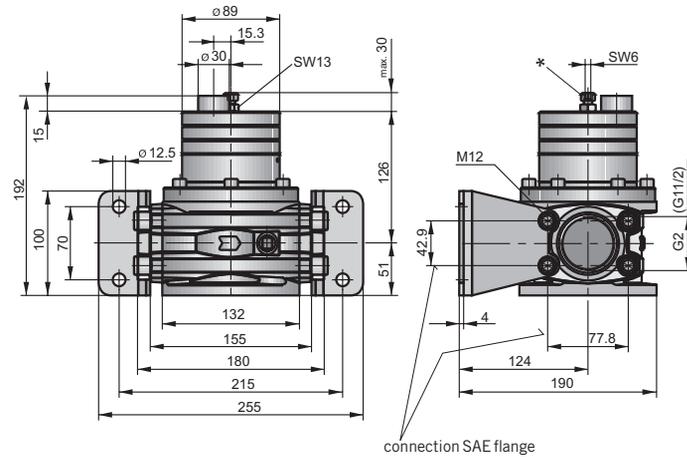
Start valve

The start function is designed to provide slow pressure build-up in pneumatic equipment. It prevents uncontrolled movements in the pneumatic equipment that can occur when starting the system at full system pressure. A throttle is used to set the pressure build-up time.

2/2 Way start-stop valve

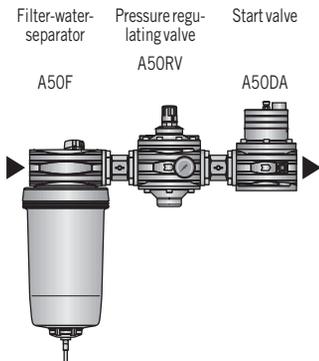
The start function is designed to provide slow pressure build-up in pneumatic equipment. It prevents uncontrolled movements in the pneumatic equipment that can occur when starting the system at full system pressure. A throttle is used to set the pressure build-up time. The stop function interrupts the air supply when the corresponding stop signal is received but does not ventilate the application (p2).

Start valve – Typ: A50DA-11/2, -2

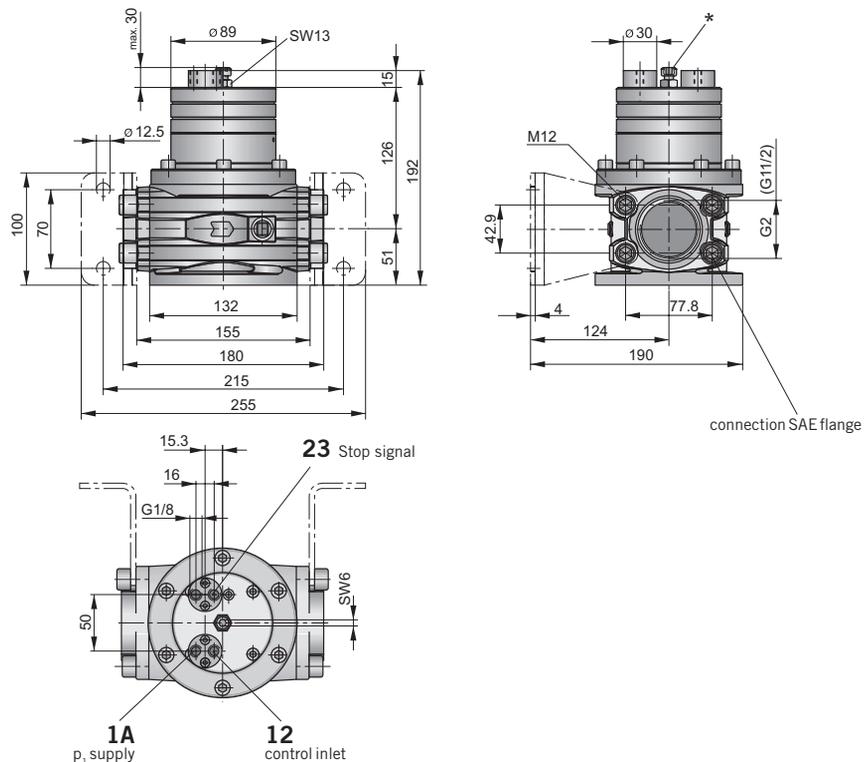


* Adjusting screw for start time selection (socket head screw SW 6)

Installation instruction for start valve



2/2 Way start-stop valve, pneumatically actuated – Type: A50DS-11/2, -2

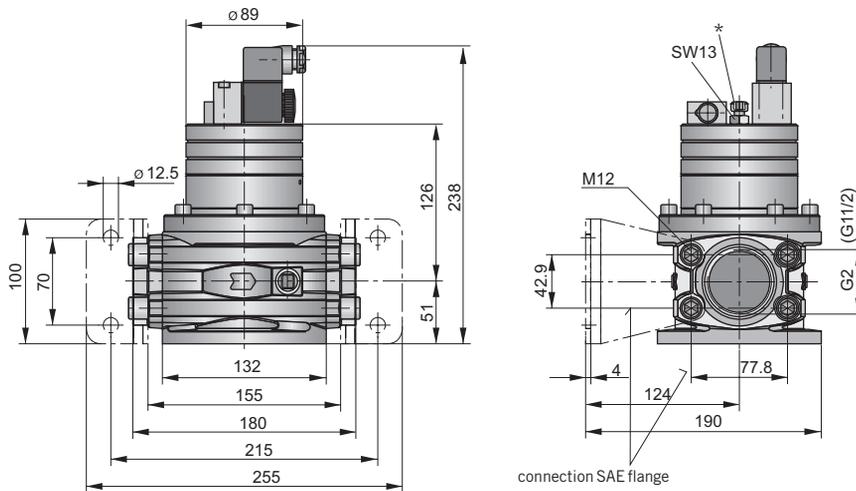


* Adjusting screw for start time selection (socket head screw SW 6)

For order instructions see page 108–110, for characteristics see page 92–95, for accessories see page 111, 112

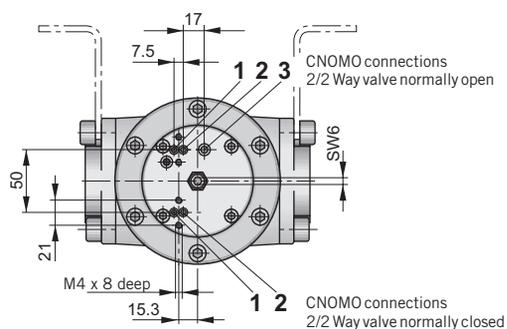
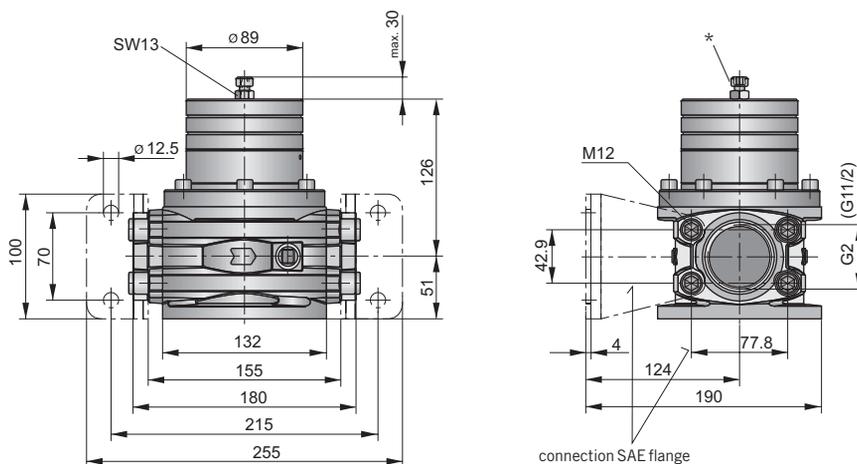
Dimensions in mm

2/2 Way start-stop valve, electrically actuated – Type: A50DS-11/2, -2



* Adjusting screw for start time selection (socket head screw SW 6)

2/2 Way start-stop valve, CNOMO connections – Type: A50DS-11/2, -2



* Adjusting screw for start time selection (socket head screw SW 6)

For order instructions see page 108–110, for characteristics see page 92–95, for accessories see page 111, 112

Dimensions in mm

Air preparation units

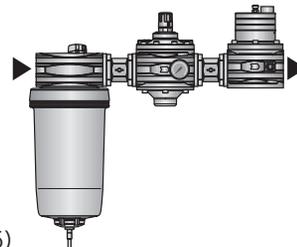
Series airfit A50
G11/2, G2
– with/without thread flanges

Dimensions

Installation instruction for 2/2 Way start-stop valve

Filter-water separator Pressure regulating valve Start-stop valve

A50F A50RV A50DS



Air preparation units

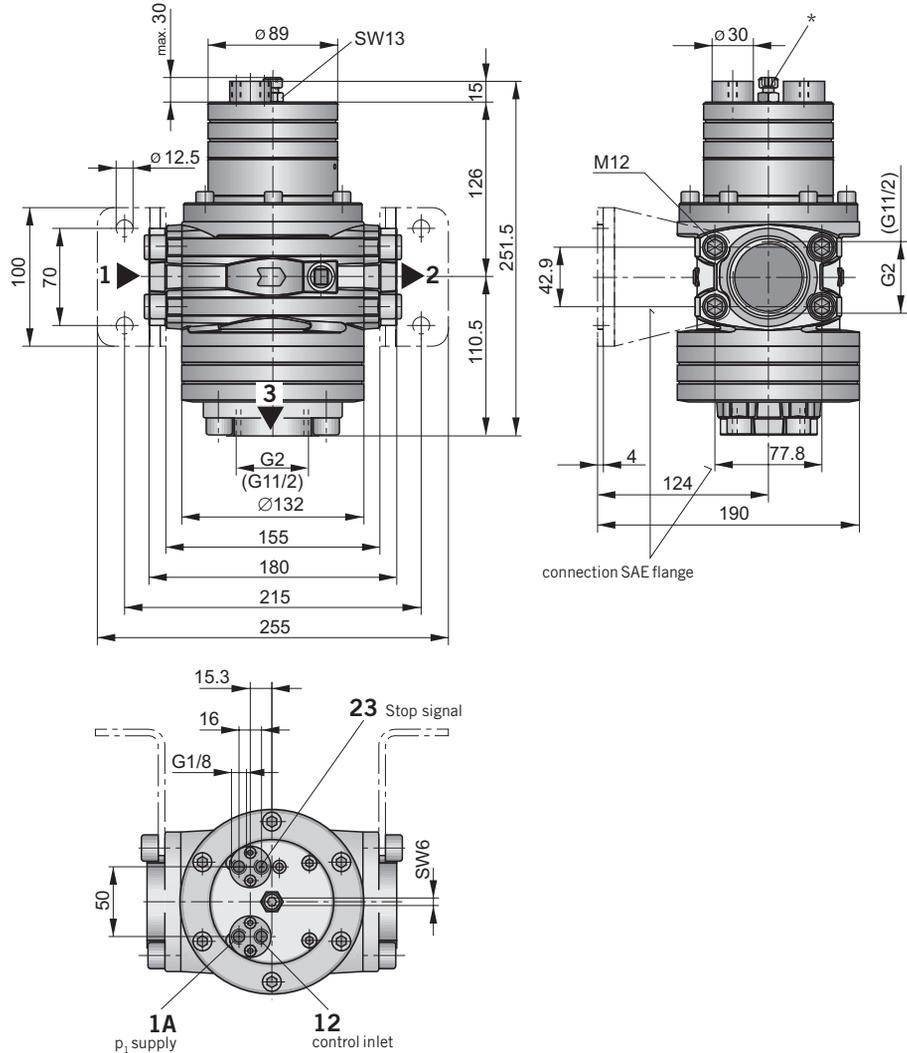
Series airfit A50
G1 1/2, G2
– with/without thread flanges

Dimensions

3/2 Way start-stop valve

The start function is designed to provide slow pressure build-up in pneumatic equipment. It prevents uncontrolled movements in the pneumatic equipment that can occur when starting the system at full system pressure. A throttle is used to set the pressure build-up time. The stop function interrupts the air supply when the corresponding stop signal is received and the pressure in the application (p2) is quickly relieved.

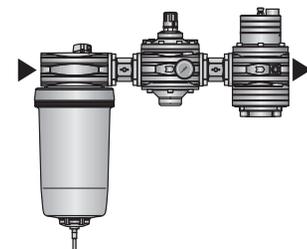
3/2 Way start-stop valve, pneumatically actuated – Type: A50DS-1 1/2, -2



* Adjusting screw for start time selection (socket head screw SW 6)

Installation instruction for 3/2 Way start-stop valve

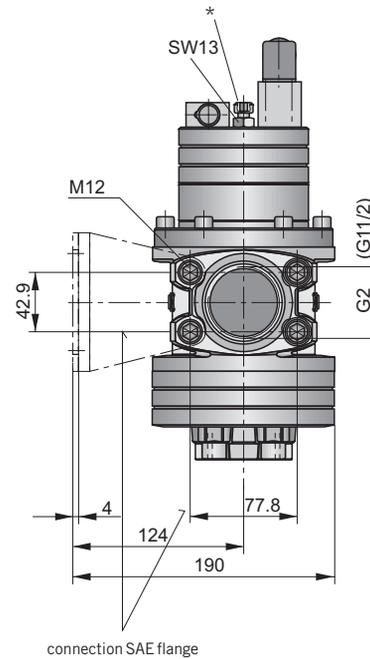
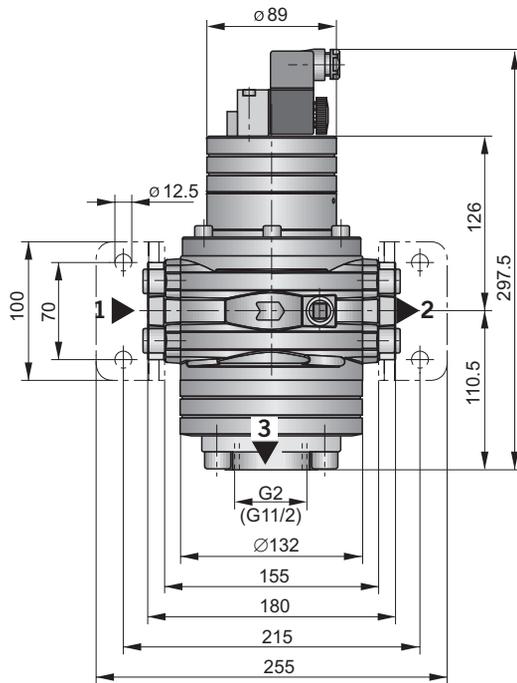
Filter-water-separator	Pressure regulating valve	Start-stop valve
A50F	A50RV	A50DS



For order instructions see page 108–110, for characteristics see page 92–95, for accessories see page 111, 112

Dimensions in mm

3/2 Way start-stop valve, electrically actuated – Type: A50DS-1 1/2, -2



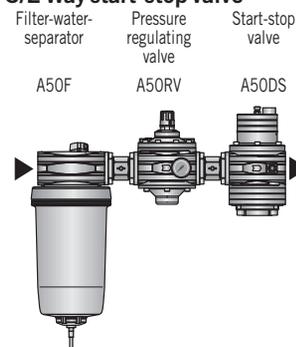
Air preparation units

Series airfit A50
G1 1/2, G2
– with/without thread
flanges

Dimensions

* Adjusting screw for start time selection
(socket head screw SW 6)

Installation instruction for 3/2 Way start-stop valve



For order instructions see page 108–110, for characteristics see page 92–95,
for accessories see page 111, 112

Dimensions in mm

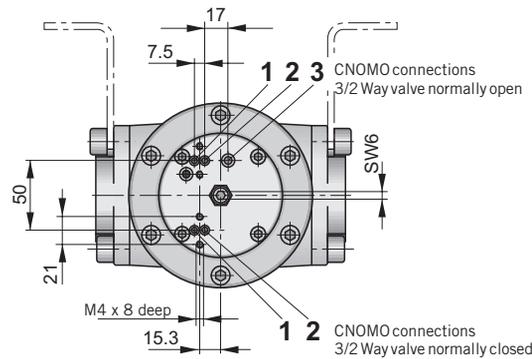
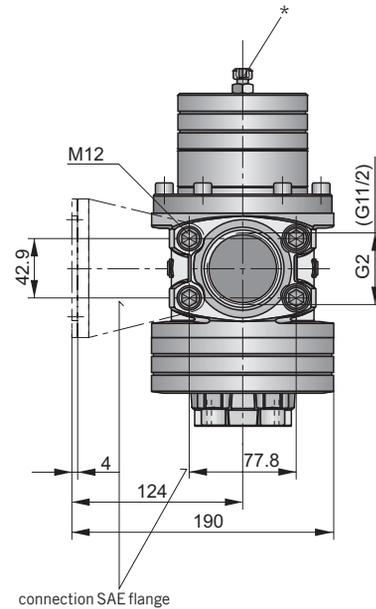
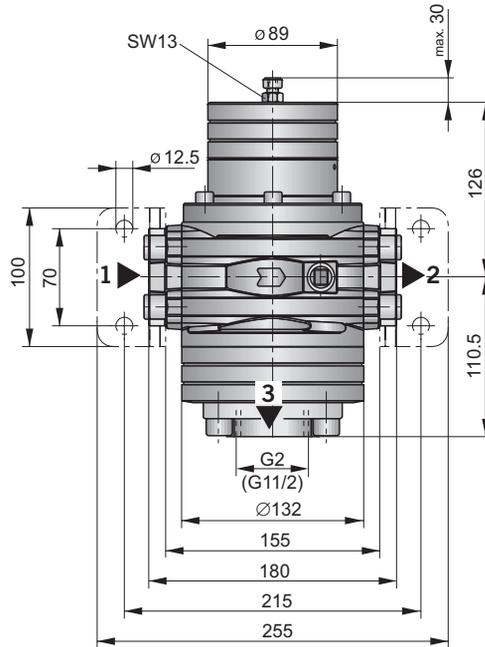


Air preparation units

Series airfit A50
G1 1/2, G2
– with/without thread flanges

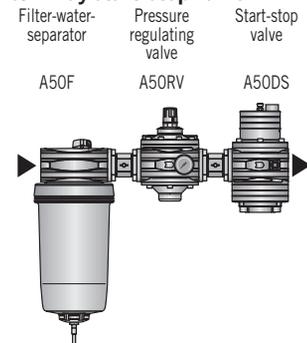
Dimensions

3/2 Way start-stop valve, CNOMO connections – Type: A50DS-11/2, -2



* Adjusting screw for start time selection (socket head screw SW 6)

Installation instruction for 3/2 Way start-stop valve

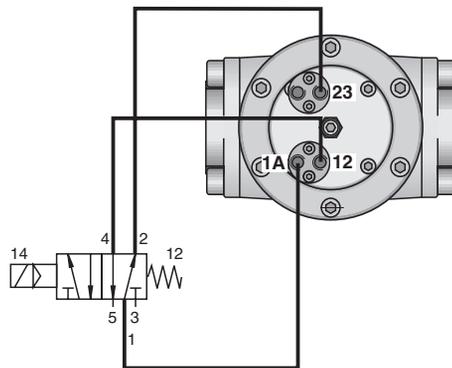


For order instructions see page 108–110, for characteristics see page 92–95, for accessories see page 111, 112

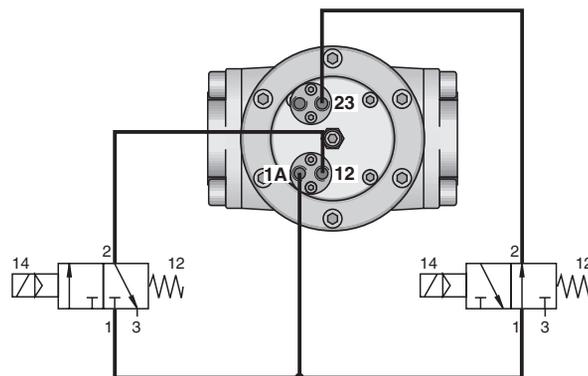
Dimensions in mm

Start-stop valve, pneumatically actuated

Combined start/stop function



Combined start/stop function with acknowledgement



Further control types on request

Air preparation units

Series airfit A50
G1 1/2, G2
– with/without thread
flanges

Control types



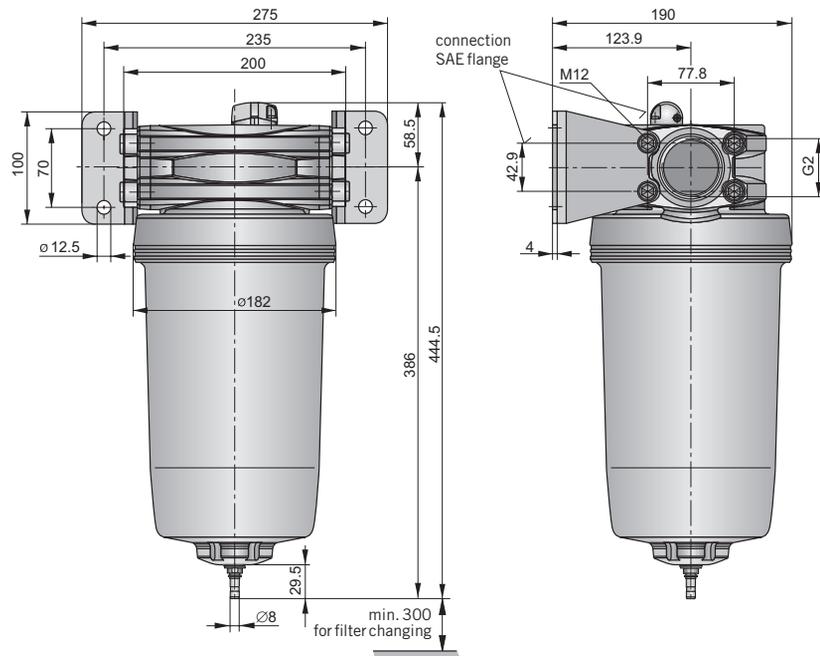
For order instructions see page 108–110, for characteristics see page 92–95,
for accessories see page 111, 112

Dimensions in mm

Air preparation units

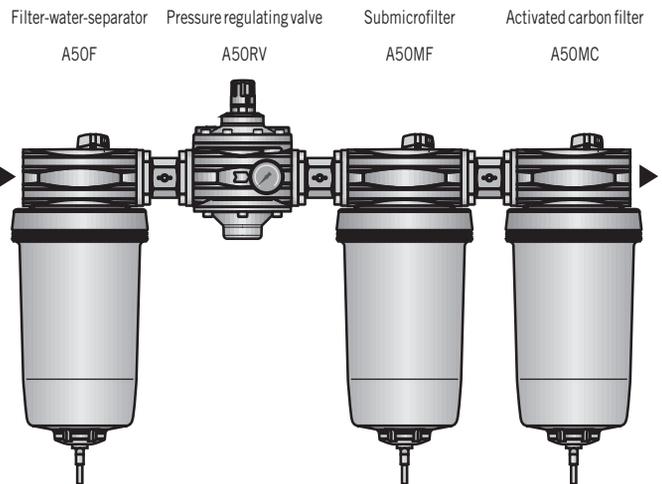
Series airfit A50
G1 1/2, G2
– with/without thread flanges

Submicrofilter – Type : A50MF-1080-11/2, -
Activated carbon filter – Type: A50MC-1080-11/2, -



Installation instruction

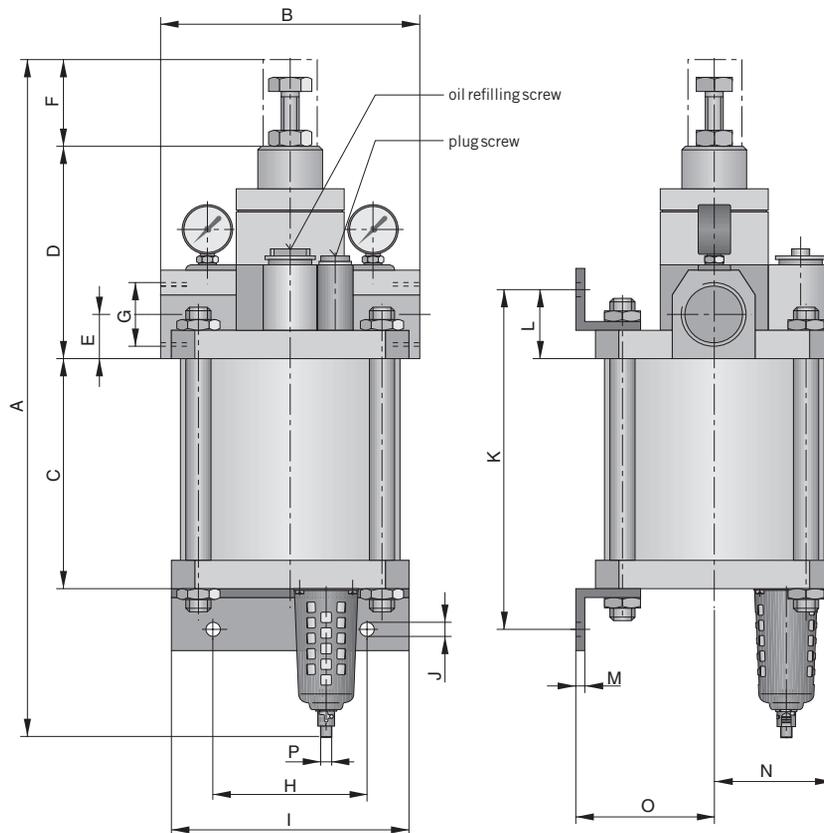
To increase the life span of the filter elements, we recommend the following order.



For order instructions see page 108–110, for characteristics see page 92–95, for accessories see page 111, 112

Dimensions in mm

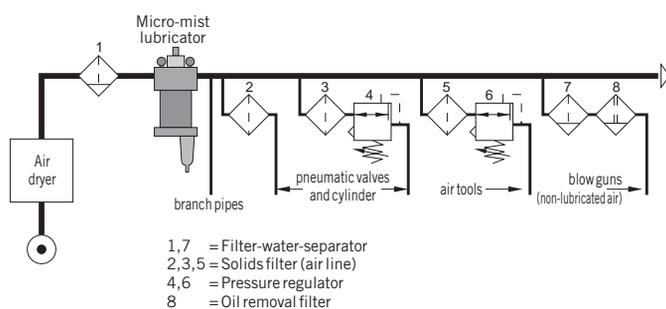
Central air line lubricator – Type: EL-25, -50



Dimension table

Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
EL-25	530	180	187	160	35	37	G1	115	180	18	304	77	3	90	110	G1/8
EL-50	608	250	225	198	46	45	G2	150	225	13	342	72	6	112.5	124.1	G1/8

Installation diagram



Installation instruction

In most cases it is advisable to install air line filters in branch pipes. When constant operating pressures are required (e.g. cylinders, pneumatic screw drivers, etc.) pressure regulators should be used. If small amounts of oil-free air are needed, a filter-water-separator followed by a submicrofilter can be installed (see Installation diagram).

Air preparation units

Series airfit A50
 G1 1/2, G2
 – with/without thread flanges

Dimensions

Central air line lubricator

Micro-mist lubricator with oil-feed adjustment depending on differential pressure.
 Comprising:
 lubricator unit, 2 gauges,
 and mounting bracket

Differential pressure gauge:
 Assembly kit with mounting kit
 For Accessories see page 112



For order instructions see page 108–110, for characteristics see page 92–95, for accessories see page 111, 112

Dimensions in mm

Air preparation units

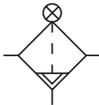
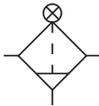
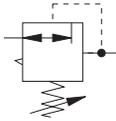
Series airfit A50
G1 1/2, G2
– with/without thread
flanges

Order instructions

* Connection flanges are not
supplied assembled



Standard versions

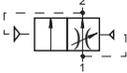
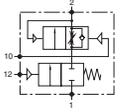
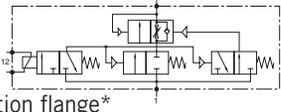
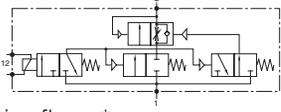
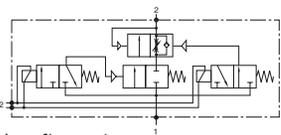
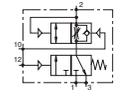
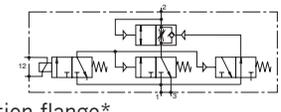
Description	Symbol	Port size	Order instruction	
			Type	Order No.
Filter-water-separator				
– Basic version		For SAE flange	A50F-ADV	PB60949-000
– Basic version with filter element 5 µm		For SAE flange	A50F-5ADV	PB 60949-016
– Basic version with connection flange*		G1 1/2	A50F-1 1/2-ADV	PB 60849-050
– Basic version with connection flange*		G2	A50F-2-ADV	PB 60949-050
– Version with connection flange* (with filter element 5 µm)		G1 1/2	A50F-1 1/2-5ADV	PB 60849-066
– Version with connection flange* (with filter element 5 µm)		G2	A50F-2-5ADV	PB 60949-066
– Dust filter basic version (with filter element 1 µm)		For SAE flange	A50FD-DV	PB 60949-120
– Dust filter with connection flange* (with filter element 1 µm)		G1 1/2	A50FD-1 1/2-DV	PB 60849-170
– Dust filter with connection flange* (with filter element 1 µm)		G2	A50FD-2-DV	PB 60949-170
Pressure regulating valve				
– Basic version with integrated pilot pressure regulating valve		For SAE flange	A50R	PB60649-021
– Basic version pilot operated (without pilot regulator)		For SAE flange	A50RV	PB60649-000
– Version with connection flange* with integrated pilot pressure regulating valve		G1 1/2	A50R-1 1/2	PB60549-070
– Version with connection flange* with integrated pilot pressure regulating valve		G2	A50R-2	PB60649-070
– Version with connection flange* pilot operated (without pilot regulator)		G1 1/2	A50RV-1 1/2	PB60549-050
– Version with connection flange* pilot operated (without pilot regulator)		G2	A50RV-2	PB60649-050

Air preparation units

Series airfit A50
G1 1/2, G2
– with/without thread
flanges

Order instructions

Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.
Start valve				
– Start valve without connection flange		For SAE flange	A50DA	PB 60649-100
– Start valve with connection flange*		G1 1/2	A50DA-1 1/2	PB 60549-150
		G2	A50DA-2	PB 60649-150
2/2 Way start-stop valve				
– pneumatically actuated		For SAE flange	A50DS-P	PB 60649-200
– pneumatically actuated with connection flange*		G1 1/2	A50DS-1 1/2-P	PB 60549-250
		G2	A50DS-2-P	PB 60649-250
– electrically actuated 230V/50Hz		For SAE flange	A50DS-E	PB 60649-204
with connection flange*		G1 1/2	A50DS-1 1/2-E	PB 60549-254
		G2	A50DS-2-E	PB 60649-254
– electrically actuated 24V DC		For SAE flange	A50DS-E	PB 60649-201
with connection flange*		G1 1/2	A50DS-1 1/2-E	PB 60549-251
		G2	A50DS-2-E	PB 60649-251
– CNOMO connection		For SAE flange	A50DS-C	PB 60649-210
with connection flange*		G1 1/2	A50DS-1 1/2-C	PB 60549-260
		G2	A50DS-2-C	PB 60649-260
3/2 Way start-stop valve				
– pneumatically actuated		For SAE flange	A50DS-P	PB 60649-220
– pneumatically actuated with connection flange*		G1 1/2	A50DS-1 1/2-P	PB 60549-270
		G2	A50DS-2-P	PB 60649-270
– electrically actuated 230V/50Hz		For SAE flange	A50DS-E	PB 60649-224
with connection flange*		G1 1/2	A50DS-1 1/2-E	PB 60549-274
		G2	A50DS-2-E	PB 60649-274
For more types see page 110				

* Connection flanges are not supplied assembled



Air preparation units

Series airfit A50
G1 1/2, G2
– with/without thread
flanges

Order instructions

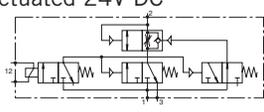
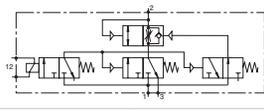
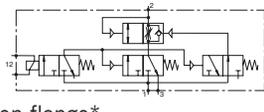


* Connection flanges are not supplied assembled

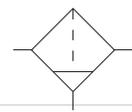
Standard versions

Description	Symbol	Port size	Order instruction	
			Type	Order No.

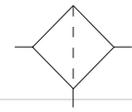
3/2 Way start-stop valve – continued from page 109

– electrically actuated 24V DC 	for SAE flange	A50DS-E	PB 60649-221
– electrically actuated 24V DC with connection flange* 	G1 1/2	A50DS-1 1/2-E	PB 60549-271
	G2	A50DS-2-E	PB 60649-271
– CNOMO connection with connection flange* 	For SAE flange	A50DS-C	PB 60649-230
	G1 1/2	A50DS-1 1/2-C	PB 60549-280
	G2	A50DS-2-C	PB 60649-280

Submicrofilter

– with automatic drainage 	For SAE flange	A50MF1080-ADV	PB 61249-000
– with automatic drainage with connection flange*	G1 1/2	A50MF1080-11/2-ADV	PB 61149-050
	G2	A50MF1080-2-ADV	PB 61249-050

Activated carbon filter

– Basic version 	For SAE flange	A50MC1080-DV	PB 61549-000
– Basic version with connection flange*	G1 1/2	A50MC1080-11/2-DV	PB 61449-050
	G2	A50MC1080-2-DV	PB 61549-050

Central air line lubricator

– Basic version with aluminum tube with electrical oil level control	G1	EL-25	PB 15749-020
	G2	EL-50	PB 15549-020
	G2	EL-50-E	PB 15549-026

Accessories

Description	For type	Order No.
Mounting kit (2 brackets + 4 screws)		PL18672
Gauge, Ø 50 mm, 0–16 bar, G1/4 *		KG8013
Coupling kit		PL18735
Connection flange (kit) G1 1/2		PL18660
Connection flange (kit) G2		PL18662
Porting block kit G1 with flange for pressure switch mounting		PL18779
Differential pressure gauge for central air line lubricator (mounting kit, brackets included)	EL-25	PL 17653
Differential pressure gauge for central air line lubricator (mounting kit, brackets included)	EL-50	PL 17652

* for more gauges see page 186, 187
For more information see accessories page 111, 112

Air preparation units

Series airfit A50
G1 1/2, G2

Accessories
– Porting block kit

To provide unlubricated air
e.g. for air gun.

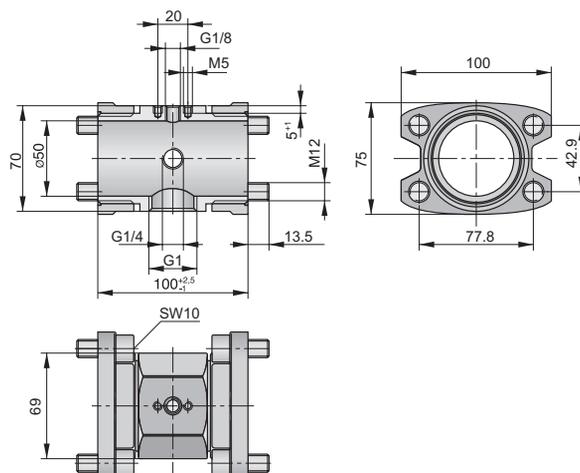
For pressure switch mounting
as standard

Delivery includes:

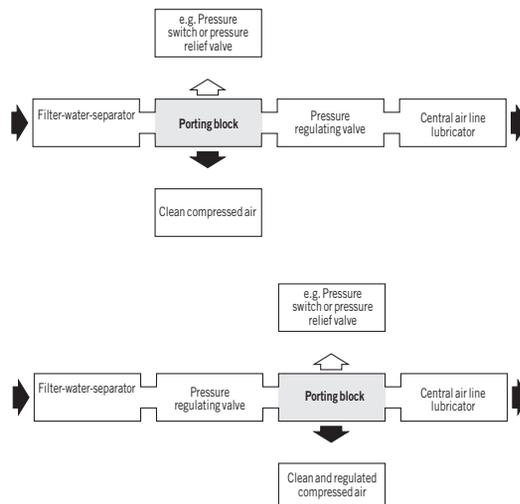
- 1 tube
- 2 flanges
- 2 o-rings for flanges
- 8 screws
- 2 o-rings
- 4 plug screws

Characteristics	Description
Installation	Between 2 units of the series airfit A50
Mounting	Directly flange mountable with coupling kit supplied
Material	Aluminum

Dimensions



Installation instruction



Order instructions

Description	Order instruction	
	Type	Order No.
Porting block kit G2 (G1 1/2)	A50X	PL 18779



Dimensions in mm

Air preparation units

Series airfit A50
G11/2, G2

Accessories

Mounting kit



Order No. PL18672

Coupling kit



Order No. PL18735

Gauge
Ø 50, 0–10 bar, G1/4



Order No.
KG8012 (0–10 bar)
KG8013 (0–16 bar)

For more gauges
see page 186, 187

Connection flange -kit



Order No.
PL 18660 (G2)
PL 18662 (G11/2)

Differential pressure gauge
(mounting kit, brackets
included)



Order No.
EL-20/25 PL 17653
EL-40/50 PL 17652